#66 A Critique of ‘Regret aversion and the reluctance to exchange lottery tickets’


Newcastle University
Introduction

This assignment will be a critique of the paper by van de Ven & Zeelenberg [1] on regret aversion. The critique will begin with an overview of the paper. It will then discuss some of the strengths and weaknesses of the paper before considering the implications of the paper, as well as making suggestions for future research.

Overview

This study explored the effect of anticipated regret on decision making. Anticipated regret has been suggested to have an effect on peoples’ decision making [2], and support has been found for this viewpoint. Langer [3], among others, found that people avoid exchanging one lottery ticket for another, even if there is an incentive to. Bar-Hillel [4] hypothesised that this could be in part due to anticipated regret, and this study looks to test experimentally whether anticipated regret has an effect on willingness to exchange lottery tickets.

The study, by van de Ven and Zeelenberg [1], was run in 2003, and was composed of 2 experiments. Both experiments involved 7 seminar groups of psychology students being split into 2 groups based on seminar group. In both experiments, the students were all given lottery tickets which had the chance to win one 15 euro book voucher per seminar group. The students were given the chance to swap their lottery ticket for another and receive a free pen. Participants indicated whether they wanted to exchange their tickets, then said how much they took anticipated regret of exchanging their ticket into account for this decision.

In experiment 1, 230 students (189 were female) participated. In one group, the participants received their lottery tickets in a sealed envelope to try and reduce the anticipated regret of swapping the tickets- if the participants didn’t know the number of their initial ticket, they would not know if their initial ticket had ended up winning after they exchanged it. In the other group, the tickets were not in envelopes and could be seen by the participants.
In experiment 2, 180 students (126 were female) participated. In this experiment, both groups could see the numbers of their initial tickets, but one group was told the number of the ticket they would be exchanging theirs for if they chose to exchange. This increased the possibility of regret being caused by not exchanging, as the participants would know if the ticket they could have exchanged theirs for had won. In the other group, participants were not told of a specific ticket they could exchange theirs for. Participants also indicated how much they had taken anticipated regret of not exchanging into account in this experiment.

The results of the study support the hypothesis that decisions to exchange tickets are affected by anticipated regret. In experiment 1, participants in the sealed envelope condition indicated significantly less anticipated regret for exchanging (p=.017) and were significantly more likely to exchange their ticket (p=.007). In experiment 2, participants who knew the ticket number they could exchange for indicated significantly higher anticipated regret for not exchanging (p=.008), and were significantly more likely to exchange their ticket (p=.043).

**Strengths and Weaknesses**

In terms of the hypotheses of this study, anticipated regret affecting decision making is supported by several theories in financial psychology, particularly loss aversion- people being more sensitive to potential losses than potential gains [5]. As loss aversion also applies to individuals’ levels of wellbeing [6], people may not be willing to risk decreasing their emotional wellbeing due to an increase of regret, even if they get a material gain.

However, in terms of methodology, there are several problems with the study which may limit the usefulness of its results. For example, the sample of participants used is disproportionately female, which could affect the generalizability of the study, particularly since women are financially more risk averse than men [7] -if participants viewed exchanging their tickets as a risk- a gain of a pen with a chance of a loss in the form of increased regret- then their level of risk aversion could affect how willing they were to exchange their tickets.
There are several other problems with the sample. It was made up entirely of students, who are unlikely to have much financial experience and therefore may behave differently to the general population. They were also psychology students, which may have increased the likelihood of them attempting to guess the study’s hypothesis and creating demand characteristics. The sample was also fairly young, with a mean age of 20 in both experiments. As young people have been found to take more risks [8], this could also affect the results. There was also no mention of the participants’ nationalities, which could also have affected their risk aversion depending on the culture they came from [9]. However, one of the strengths of this study’s sample is that it is large, and should therefore be fairly reliable. A large sample is particularly important in this study due to additional factors (such as participant mood [10, 11] or hunger [12]) having an effect on results by affecting participant risk aversion.

One potential problem with the methodology is how the groups were organised- the students were split by seminar group. It is unclear if there were any differences in seminar groups- if students were allocated to a seminar group randomly, or by ability, year of study, or another factor. If the seminar groups were not randomly allocated then this could have a large effect on the validity of the results, as the experimental groups may have been different.

Another problem with the methodology is caused by the participants taking part in the experiment in groups. This means that social factors could potentially have played a role in participants’ decisions. For example, Ermer [13] found that participants’ risk-taking was affected depending on who they were surrounded by and their relative social status. The authors also mention the potential for envy aversion [14] in one condition, where participants may have tried to avoid the envy of seeing someone else win with their discarded ticket.

A final methodological problem may be the relatively small reward for exchanging tickets. A pen (worth 1 euro) may have been seen by the participants as inconsequential
compared to the book token and chance of regret, especially since participants may also have been overconfident in their judgement of their chances of winning the lottery [15]. If this is the case then participants’ preference for avoiding regret proves little.

However, one methodologically strong point of the research is the involvement of multiple conditions to show that decisions are affected by anticipated regret regardless of whether anticipated regret over exchanging or not exchanging is changed. This helps control for potential biases, such as ambiguity aversion [16] for subjects who may believe certain numbers are lucky or have a greater chance of success- lucky numbers were given as a reason for exchanging or not exchanging by some participants in Bar-Hillel and Neter’s study.[4]

**Implications**

This is the first paper to test the effect of anticipated regret on reluctance to exchange lottery tickets and as such it is useful in confirming previous hypotheses regarding why participants showed this reluctance, as well as demonstrating the strength of the influence anticipated regret has on decision making. However, its usefulness is somewhat limited by the problems discussed above. Future research in this area would be advised to test if the findings from this study are consistent in individual testing and with a more representative sample. Further research could also test how big of an incentive is required to counteract the effect of anticipated regret, to give a better idea of how strong this effect is.

A good study to consolidate and build on the findings from this study would therefore employ a similar methodology to experiment 1 of this study but test participants individually. Participants would be informed of the number of other participants included in their lottery so their perception of the chances of winning would not be affected. Number of students in each lottery could then also be standardised. The effect of regret aversion could be tested against different incentives by including different conditions with different rewards for exchanging tickets, ranging from no reward to a reward worth slightly less than the lottery prize.
References

5. (Lecture 3: Slide 3).
6. (Lecture 5: Slide 40).
7. (Lecture 3: Slide 6).
10. (Lecture 1: Slide 101).
11. (Lecture 2: Slide 17).
12. (Lecture 1: Slide 102).
15. (Lecture 1: Slide 9).
16. (Lecture 8: Slide 6).